

WHAT IS CLAIMED IS:

- 1    1. A computer-implemented method for report selection in a system that  
2 provides a plurality of reports, comprising:
  - 3         populating a database with selected data elements of a plurality of data  
4 types;
  - 5         creating a database content table that indicates the data types of the data  
6 elements present in the database;
  - 7         establishing a report table containing for each report a report identifier  
8 and an associated set of report requirements, each set of report requirements  
9 identifying a set of data types required for the associated report; and
  - 10        outputting a set of report identifiers for which the data types of data  
11 elements in the database satisfy the associated sets of report requirements.
- 1    2. The method of claim 1, further comprising:
  - 2         creating a report description table that associates report names with the  
3 report identifiers; and
  - 4         displaying a list of report names that correspond to the set of report  
5 identifiers.
- 1    3. The method of claim 2, wherein the list of report names displayed are  
2 selectable and linked to respective report functions that generate report data in  
3 accordance with predefined formats.
- 1    4. The method of claim 3, further comprising reading the selected data  
2 elements from a sequential data file prior to populating the database.
- 1    5. A computer-implemented method for selection of reports of log data  
2 generated by software executing on a host data processing system, wherein the  
3 log data are stored by the host system in a sequential log file of log records of  
4 different log record types, the method comprising:

5           establishing a report table containing for each report a report identifier  
6   and an associated set of report requirements, each set of report requirements  
7   including a set of log-record-type identifiers indicating which of the log record  
8   types contain log data required for the associated report;  
9           reading selected log records from the log file;  
10          storing log data from the selected log records in a relational log-data  
11   database;  
12          creating a database content table that indicates the log record types of the  
13   selected log records; and  
14          outputting a set of report identifiers of reports for which the log data in the  
15   database content data table satisfies the set of report requirements of associated  
16   report definitions.

1   6.       The method of claim 5, further comprising for each log record type of the  
2   selected log records, storing log data from the selected log records of the log  
3   record type in a respective log data table.

1   7.       The method of claim 6, further comprising:  
2           reading a plurality of sets of selected log records from the log file;  
3           storing log data from the plurality of sets of selected log records in  
4   respective relational log-data databases;  
5           creating respective database content tables for the respective relational  
6   log-data databases.

1   8.       The method of claim 5, further comprising:  
2           reading a plurality of sets of selected log records from the log file;  
3           storing log data from the plurality of sets of selected log records in  
4   respective relational log-data databases;  
5           creating respective database content tables for the respective relational  
6   log-data databases.

1    9.    The method of claim 8, further comprising:  
2        creating a report description table that associates report names with the  
3    report identifiers; and  
4        displaying a list of report names that correspond to the set of report  
5    identifiers.

1    10.   The method of claim 9, wherein the list of report names displayed are  
2    selectable and linked to respective report functions that generate report data in  
3    accordance with predefined formats.

1    11.   The method of claim 5, further comprising:  
2        creating a report description table that associates report names with the  
3    report identifiers; and  
4        displaying a list of report names that correspond to the set of report  
5    identifiers.

1    12.   The method of claim 11, wherein the list of report names displayed are  
2    selectable and linked to respective report functions that generate report data in  
3    accordance with predefined formats.

1    13.   A computer-implemented method for processing log data generated by  
2    software executing on a host data processing system, wherein the log data are  
3    stored by the host system in a sequential log file of log records of different log  
4    record types, the method comprising:

5        reading selected log records from the log file in response to a first request  
6    that includes a first code indicating at least one user-specified log record type;  
7        transmitting the selected log records from the host system to a second data  
8    processing system;

9        converting log data from the selected log records to a format suitable for  
10   storage in a relational database and storing the data of the second format in a  
11   relational database by the log record types, wherein the selected log records are

12 converted and stored in the relational database at the second data processing  
13 system;

14 establishing a report table containing for each report a report identifier  
15 and an associated set of report requirements, each set of report requirements  
16 including a set of log-record-type identifiers indicating which of the log record  
17 types contain log data required for the associated report;

18 creating a database content table that indicates the log record types of the  
19 selected log records; and

20 outputting a set of report identifiers of reports for which the log data in the  
21 database content data table satisfies the set of report requirements of associated  
22 report definitions.

1 14. The method of claim 13, further comprising for each log record type of the  
2 selected log records, storing log data from the selected log records of the log  
3 record type in a respective log data table.

1 15. The method of claim 14, further comprising:

2 reading a plurality of sets of selected log records from the log file;

3 storing log data from the plurality of sets of selected log records in  
4 respective relational log-data databases;

5 creating respective database content tables for the respective relational  
6 log-data databases.

1 16. The method of claim 13, further comprising:

2 creating a report description table that associates report names with the  
3 report identifiers; and

4 displaying a list of report names that correspond to the set of report  
5 identifiers.

1    17. The method of claim 13, wherein the list of report names displayed are  
2    selectable and linked to respective report functions that generate report data in  
3    accordance with predefined formats.

1    18. An apparatus for report selection in a system that provides a plurality of  
2    reports, comprising:

3                means for populating a database with selected data elements of a plurality  
4    of data types;

5                means for creating a database content table that indicates the data types of  
6    the data elements present in the database;

7                means for establishing a report table containing for each report a report  
8    identifier and an associated set of report requirements, each set of report  
9    requirements identifying a set of data types required for the associated report;  
10   and

11                means for outputting a set of report identifiers for which the data types of  
12   data elements in the database satisfy the associated sets of report requirements.

1    19. An apparatus for selection of reports of log data generated by software  
2    executing on a host data processing system, wherein the log data are stored by  
3    the host system in a sequential log file of log records of different log record types,  
4    the method comprising:

5                means for establishing a report table containing for each report a report  
6    identifier and an associated set of report requirements, each set of report  
7    requirements including a set of log-record-type identifiers indicating which of the  
8    log record types contain log data required for the associated report;

9                means for reading selected log records from the log file;

10                means for storing log data from the selected log records in a relational log-  
11   data database;

12                means for creating a database content table that indicates the log record  
13   types of the selected log records; and

14           means for outputting a set of report identifiers of reports for which the log  
15    data in the database content data table satisfies the set of report requirements of  
16    associated report definitions.

1    20.   A log data processing system, comprising:

2           a host data processing system configured for execution of a plurality of  
3    application programs, the host system further configured to store log data  
4    pertaining to the application programs in a sequential log file of log records of  
5    different log record types; and

6           a second data processing system coupled to the host system, the second  
7    system configured to initiate reading of selected log records from the log file in  
8    response to a first request that includes a first code indicating at least one user-  
9    specified log record type, convert log data from the selected log records to a  
10   format suitable for storage in a relational database, and store the data of the  
11   second format in a relational database by the log record types, wherein the  
12   second data processing system is further configured to establish a report table  
13   containing for each report a report identifier and an associated set of report  
14   requirements, each set of report requirements including a set of log-record-type  
15   identifiers indicating which of the log record types contain log data required for  
16   the associated report, create a database content table that indicates the log record  
17   types of the selected log records, and output a set of report identifiers of reports  
18   for which the log data in the database content data table satisfies the set of report  
19   requirements of associated report definitions.